

539,552

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
1 July 2004 (01.07.2004)

PCT

(10) International Publication Number
WO 2004/055863 A1

(51) International Patent Classification⁷: **H01J 65/04**

(21) International Application Number:
PCT/KR2002/002384

(22) International Filing Date:
18 December 2002 (18.12.2002)

(25) Filing Language: English

(26) Publication Language: English

(71) Applicant (for all designated States except US): **LG ELECTRONICS INC.** [KR/KR]; 20, Yoido-Dong, Yongsungpo-Gu, 150-010 Seoul (KR).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **LEE, Sung-Hwa** [KR/KR]; Towol Seongwon Apt. 503-402, Sangnam-Dong, 641-781 Changwon, Gyeongsangnam-Do

(KR). **SON, Young-Bok** [KR/KR]; 25-3, Sinwol-Dong, 641-837 Changwon, Gyeongsangnam-Do (KR). **LEE, Kwang-Won** [KR/KR]; Digital Hwangto Apt. 202-303, Daebang-Dong, 641-100 Changwon, Gyeongsangnam-Do (KR).

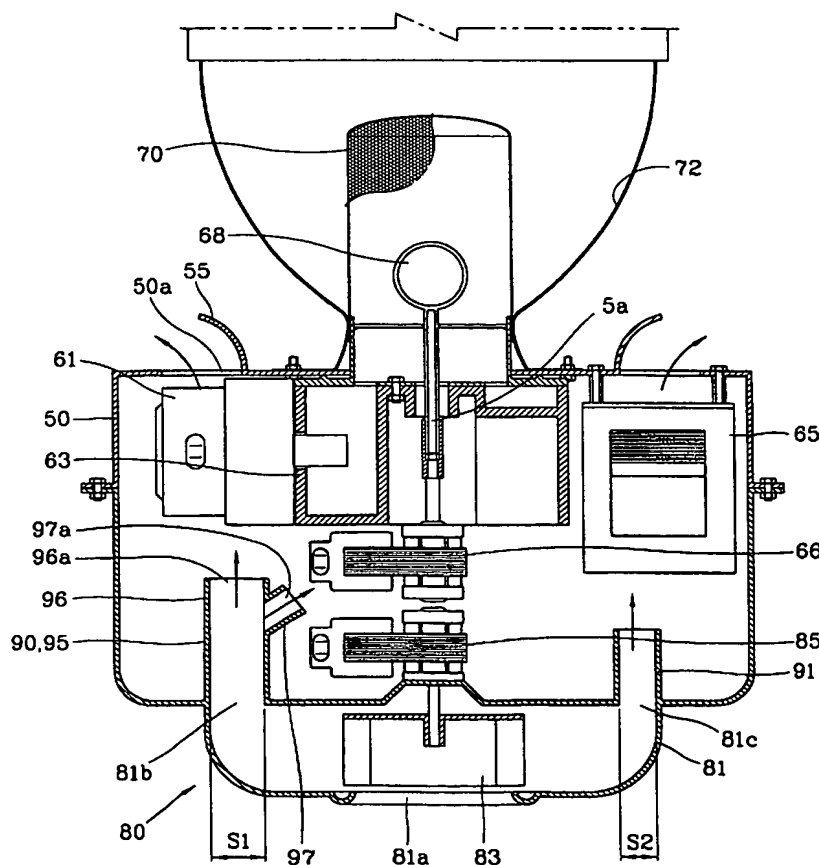
(74) Agent: **PARK, Jang-Won**; Jewoo Bldg. 5th Floor, 200, Nonhyun-Dong, Gangnam-Ku, 135-010 Seoul (KR).

(81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),

[Continued on next page]

(54) Title: **COOLING STRUCTURE FOR PLASMA LIGHTING SYSTEM**



(57) Abstract: Disclosed is a cooling structure for a plasma lighting system comprising a fan housing having at least two discharge ports having different flow rates for introducing external air into a case and cooling heat generating components in the case. The structure intensively cools heat generating components of high temperature such as a magnetron, thereby prolonging a life span of the components and enhancing a performance of a system.

WO 2004/055863 A1



European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

Published:

— *with international search report*